DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT

South Fork Tributary Habitat Enhancement Project
U.S. Forest Service
Salmon/Scott River Ranger District
Klamath National Forest
Siskiyou County, California

The South Fork Tributary Habitat Enhancement Project was developed in response to the need for increased complex spawning and rearing habitat for coho salmon and other anadromous fish in Knownothing and Methodist Creeks. The low gradient of these streams of the South Fork Salmon River make them preferred habitat for Endangered Species Act-listed coho salmon. Currently, these streams have degraded habitat complexity lacking large woody debris, which has resulted in broad-scale simplification of channel complexity and a corresponding reduction of suitable habitat for all life stages of salmonids.

The project area includes 25 large diameter wood instream structures to enhance salmonid habitat within 19 sites in Knownothing and Methodist Creeks over 3.15 miles of stream (1.42 miles and 1.73 miles respectively) on the Salmon/Scott River Ranger District of the Klamath National Forest. Knownothing Creek is 3 miles upriver from the town of Forks of Salmon, California, in Siskiyou County; Methodist Creek is 6 miles upriver from Forks of Salmon. See Appendix A for a map of the area to be treated and Appendix B for a list of project design features to be incorporated into the project design.

DECISION

Based upon my review of the South Fork Tributary Habitat Enhancement Project Environmental Assessment (EA), I have decided to implement Alternative 2, which will:

- Increase over-summer rearing habitat through pool development. The large wood structures will form pools and will encourage scour, increasing pool depth. The increase in pool habitat will provide juvenile salmonids enhanced over-summer habitat. Additionally, enhanced subsurface flow and riparian shading will cool water temperatures in pools during critical summer months for salmonid rearing.

- Increase over-winter rearing habitat by providing velocity refugia. Since coho salmon spawn in December when flows are highest, suitable spawning habitat is typically limited in the main river channel with off-channel habitats and tributaries providing the most suitable habitat for spawning. The large woody debris will create slow water rearing habitat and refugia from high flows. Additionally, the structures will provide cover and a food source for juvenile salmonids.

- Enhance/entrain spawning gravels. Increased channel complexity and reduced stream velocity will result in better sorted gravels. In particular, the increase in pool and slow

water habitat will result in accumulated spawning gravels as they collect in pool tail-outs and low gradient riffles. Pool forming structures will encourage scour, increasing pool depth. As the complexity of the stream increases, sediment will deposit intermittently throughout the creeks, rather than being transported continuously and depositing at the mouth or the South Fork Salmon River.

- Provide for a wide range of habitat heterogeneity for juvenile and adult salmonids. Enhancing these streams will meet Forest Plan Aquatic Conservation Strategy Objectives by aiding the recovery of fish habitat, riparian habitat, and water quality (6-46). The cold water of the South Fork Salmon River is vital to providing summer rearing habitat for coho salmon. The lack of habitat complexity inherent to many Salmon River tributaries is currently limiting the potential for the recovery of the coho population in a watershed that has tremendous potential for providing a long-term stronghold (refugia) for salmonids. The proposed project will result in improved habitat complexity during all life stages of the salmonid life cycle through implementing a diverse range of constructed log features that will interact with these channels during a wide range of stream flows.

- Increase stream flow residence time and improve surface water and groundwater interaction. The enhanced channel complexity will increase pool and slow water habitat by creating roughness in the system, which will decrease stream velocity. Slowing stream velocity will improve subsurface groundwater retention within the floodplain, increasing the amount and residence time of hyporheic flow (groundwater/surface water interaction), which will enhance riparian vegetation and result in increased shade (Poole and Berman 2001; Sawyer and Cardenas 2012). This has a beneficial indirect effect on water temperature by maintaining hyporheic flow longer into the water year, improving cool water refugia conditions in-stream, and providing cool water inputs to the South Fork Salmon River, benefiting both anadromous fisheries recovery and TMDL implementation goals.

DECISION RATIONALE

My rationale for choosing the selected alternative, as it responds to the purpose and need of the project (Page 2 of the EA), is described below.

Two alternatives were considered in detail in the Environmental Assessment for the South Fork Tributary Habitat Enhancement Project. In addition to the selected alternative (alternative 2), I considered alternative 1 (no action).

Alternative 1 was not selected because it did not meet the stated purpose and need for the project. Under the no action alternative, there would be no improvement to fish habitat or stream temperature within the two degraded streams within the project area. If no action is taken, Knownothing and Methodist Creeks would continue to be simple, channelized systems, greatly lacking in large woody debris and the resulting habitat complexity associated with such debris.

The selected alternative complies with all applicable laws and regulations and is consistent with

the Klamath National Forest Land and Resource Management Plan (Forest Plan, 1995 as amended). It is consistent with the Aquatic Conservation Strategy of the Forest Plan by proposing actions that are proactive in maintaining and restoring watershed processes as well as the species that depend upon high quality aquatic habitat. The selected alternative will meet the purpose and need of the project by restoring aquatic habitat. The selected alternative will restore large woody debris into Knownothing and Methodist Creeks, creating habitat features necessary for coho and other salmonid recovery in the Salmon River. I believe that the EA appropriately details and adopts all practical means to avoid or minimize environmental harm.

I believe the EA presents an objective and well-documented analysis of environmental effects expected to result from implementation of the selected alternative. The analysis, including interrelated and interdependent actions, shows that the scenario depicted by the selected alternative can effectively meet the purpose and need and restore the project area, while resulting in a Finding of No Significant Impact (FONSI). My conclusion is based on a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk.

The South Fork Tributary Habitat Enhancement Project EA documents the environmental analysis and conclusions upon which this decision is based.

PUBLIC INVOLVEMENT

This action was originally listed as a proposal on the Klamath National Forest Schedule of Proposed Actions and updated periodically during the analysis. On November 8, 2016, the proposal was mailed to thirty-six nearby landowners or claim owners, to four tribes, the United States Fish and Wildlife Service, the National Marine Fisheries Service, Siskiyou County, and to the North Coast Regional Water Quality Control Board for a 30-day public scoping/comment period from November 8, 2016 to December 7, 2016. The proposal was posted on the Forest website and first listed in the Schedule of Proposed Actions on October 1, 2016. One public comment was received during the combined scoping/comment period, the comment letter was in support of the project. Additionally, this project was discussed in the Salmon River Restoration Council's 2016 fall newsletter as well as the 2016 Annual Report, both of which are accessible to the public.

The EA lists agencies and people consulted on page 3 in the public involvement section.

FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

This decision is consistent with the Klamath National Forest Land Management Plan. The project was designed in conformance with the Aquatic Conservation Strategy.

A Finding of No Significant Impact (FONSI) and EA were considered. I determined these actions will not have a significant effect on the quality of the human environment, and an Environmental Impact Statement (EIS) will not be prepared.

FINDING OF NO SIGNIFICANT IMPACT

The significance of environmental impacts must be considered in terms of context and intensity. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human and national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. In the case of a site-specific action, significance usually depends upon the effects in the locale rather than in the world as a whole. Intensity refers to the severity or degree of impact. (40 CFR 1508.27)

CONTEXT

For the proposed action, the context of the environmental effects is based on the environmental analysis in this document. The proposed action will restore large woody debris into Knownothing and Methodist Creeks, creating habitat features necessary for coho and other salmonid recovery in the Salmon River.

INTENSITY

The intensity of effects was considered in terms of the following:

1. **Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that, on balance, the effect will be beneficial.** Consideration of the intensity of environmental effects is not biased by beneficial effects of the action. As summarized in the EA, the proposed action: (1) would have no effect or be unlikely to adversely affect populations of ESA listed, Sensitive, and/or management indicator species; (2) would benefit fish in the short- and long- term following completion of project implementation; (3) would not affect cultural or heritage resources eligibility for the National Register of Historic Places; (4) would have no effect on government or private use of public land beyond the immediate vicinity of the project sites; and (5) would have no effect on private lands.
2. **The degree to which the proposed action affects public health or safety**. There will be no significant effects on public health and safety because: (1) implementation of alternative 2 will not produce enough dust to see effects beyond the immediate local vicinity and no smoke will be produced, air quality standards will be met; (2) Best Management Practices for the protection of water quality will be implemented (EA, Appendix B); (3) Effects to hillslope stability regarding heavy equipment access to the sites was evaluated and mitigated through project design; and (4) the probability of disturbing naturally occurring asbestos is very low.
3. **Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.** There will be no significant effects on unique characteristics of the area. There are signs of historical Native American and mining activity in the project area, however the proposed action would not affect the condition of heritage resources to the extent that they would no longer be eligible for the National Register of Historic Places. Project design features have been incorporated into the project design to

significantly reduce the risk of adversely affecting heritage resources. The project area is near or within the Wild and Scenic corridor of the South Fork Salmon River. The outstandingly remarkable value for the river is fisheries. There will be a positive benefit to fisheries resources and habitat (See Fisheries Resources section of the EA), therefore the outstandingly remarkable values will be benefited by this project. The visual effects of this project will be noticeable from the South Fork Salmon River during and immediately after the changes to the stream channel configuration. These will be subordinate to the overall landscape within three years of implementation and will not be noticeable after about 10 years once the vegetation has fully recovered.

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** The effects on the quality of the human environment are not likely to be highly controversial. There is no known credible scientific controversy over the impacts of the proposed action. Restoring large woody debris to the two stream channels is an action that has a low risk of being controversial due to the expected benefits to fisheries habitat. The project will have no impact on domestic water use or availability. One public comment was received during the combined 30-day scoping/comment period, the comment letter was in support of the project (See EA page 3).

5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The outcome of projects such as the proposed action are fairly certain and do not involve unique or unknown risks. The structures will be built and anchored in compliance with Chapter VII of the California Department of Fish and Wildlife (CDFW) Habitat Restoration Manual (Flosi et al., 2010) and through the guidance of the CDFW grant manager for this project. Such methods are considered standard practices, which have been applied with much success and low risk though CDFW's Fisheries Restoration Grant Program. Large woody debris projects, similar to this project, have been implemented on neighboring National Forests, tributaries of the Klamath River within private lands, and throughout the west in similar stream types. (See EA page 4)

6. **The degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.** The proposed action will not establish a precedent and does not represent a decision in principle.

7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The cumulative impacts are not significant. The EA found that watershed disturbance caused by implementing the proposed action would be very minor because so few acres in each watershed would be disturbed. The disturbance caused by implementation of the proposed action would increase cumulative effects a very slight amount. The increase in cumulative watershed effects was too small to model with any statistical significance. (See Water Quality and Fisheries Resources sections of the EA). The cumulative impacts of this project with other projects that are either ongoing or reasonably foreseeable were analyzed for each affected resource and are not significant (See Chapter 3 of the EA).

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed , or eligible for listing, in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places and will also not cause loss or destruction of significant scientific, cultural, or historical resources because (See Heritage Resources section of the EA).
9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** The action will not adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species act of 1973 (See Fisheries and Wildlife Resources sections of the EA).
10. **Whether the action threatens to violate Federal, State, or local law or requirements imposed for the protection of the environment**. The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA (See Chapter 3 of the EA). The action is consistent with the Klamath National Forest Land and Resource Management Plan (See EA page 3).

After considering the effects of the actions analyzed, in terms of context and intensity, I have determined that these actions will not have a significant effect on the quality of the human environment. Therefore, an environmental impact statement will not be prepared.

CONTACT

For additional information concerning this decision, contact: Maija Meneks, District Fish Biologist, Salmon/Scott River Ranger District, 11263 N. Hwy 3 Fort Jones, CA, 530-468-1272, mmeneks@fs.fed.us

Ted O. McArthur
District Ranger, Salmon/Scott River Ranger District

6/26/17
Date

APPENDIX A – PROJECT MAPS

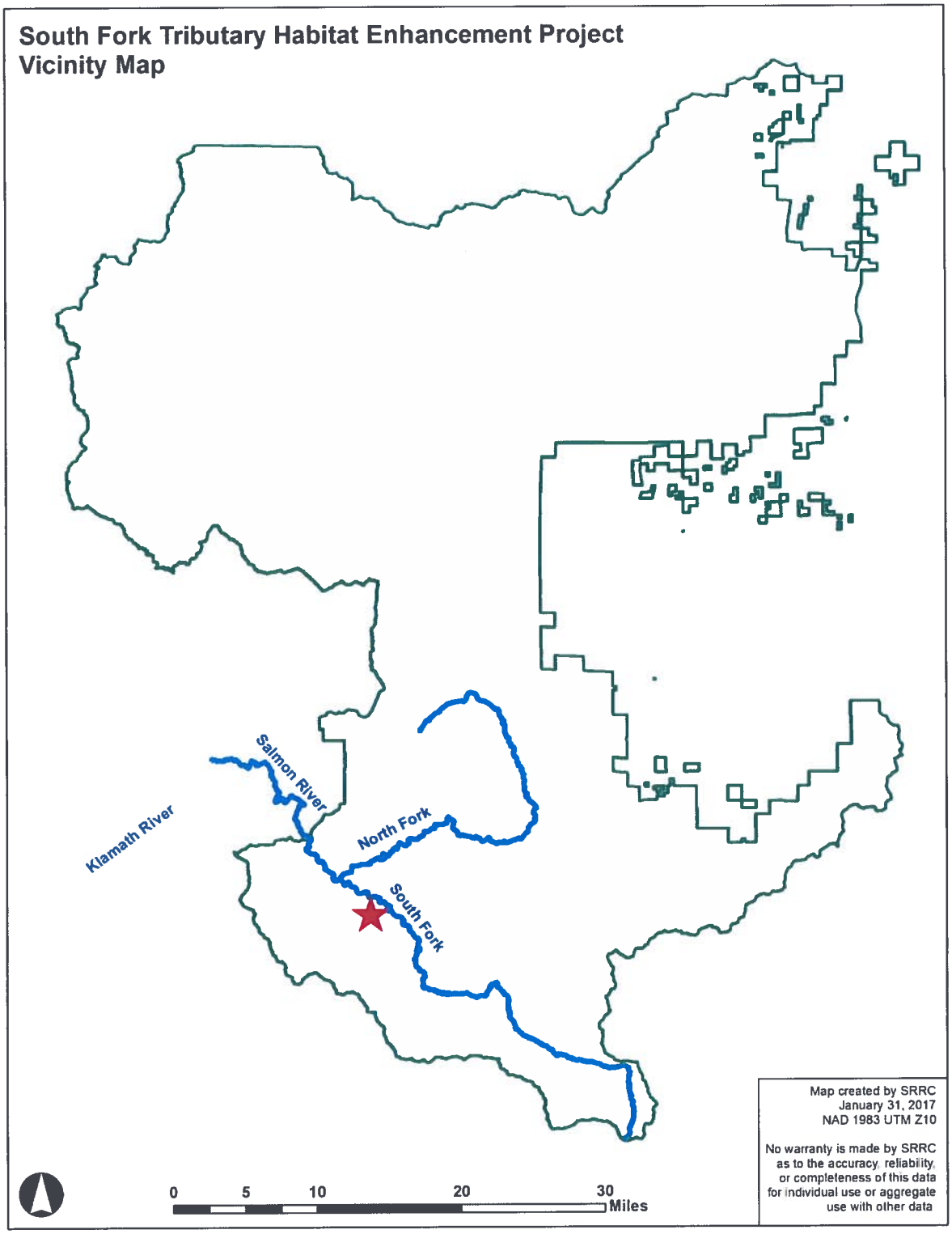

Figure 1: Vicinity map showing the project area relative to the Forest boundary.

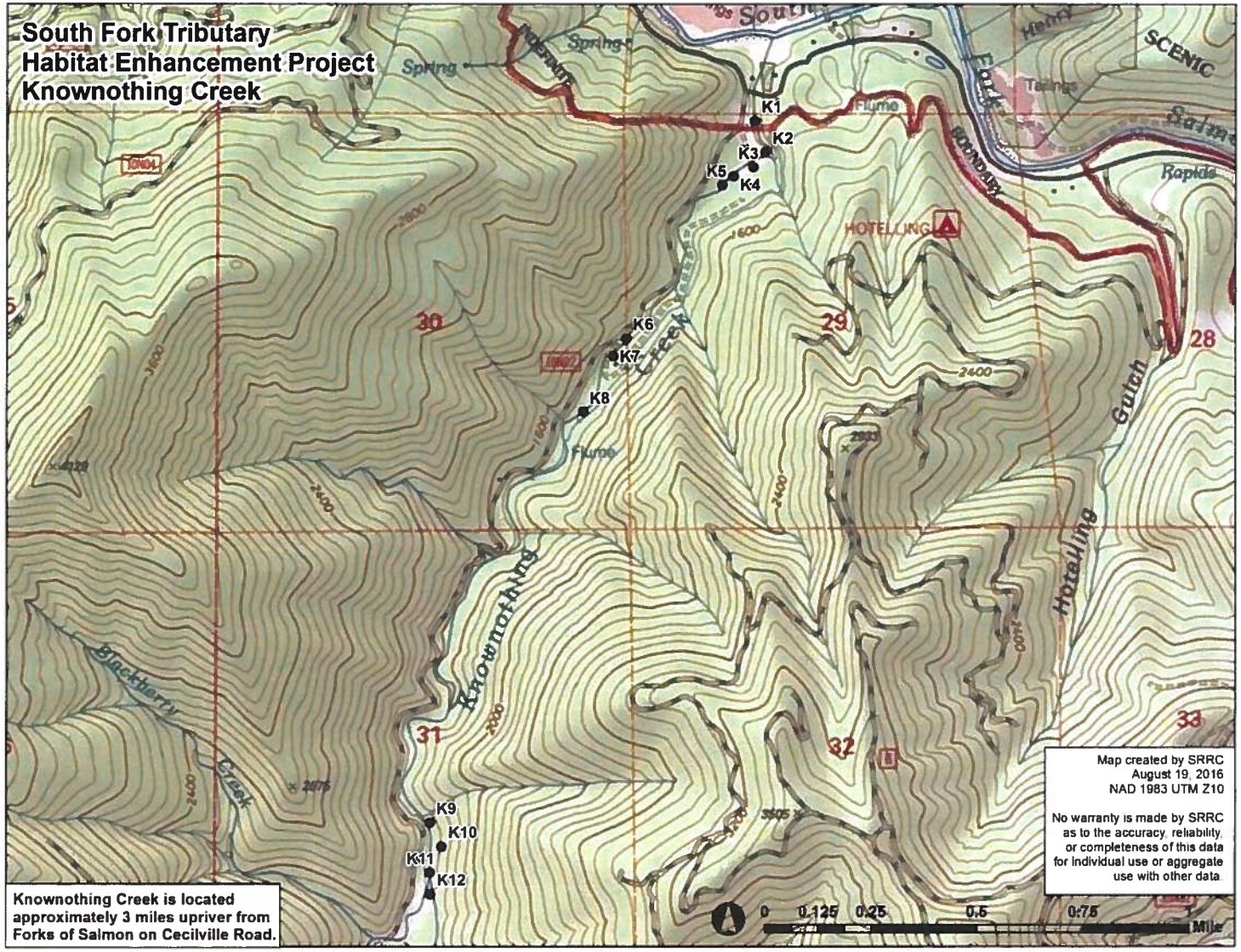

Figure 2: Project area map for Knownothing Creek.

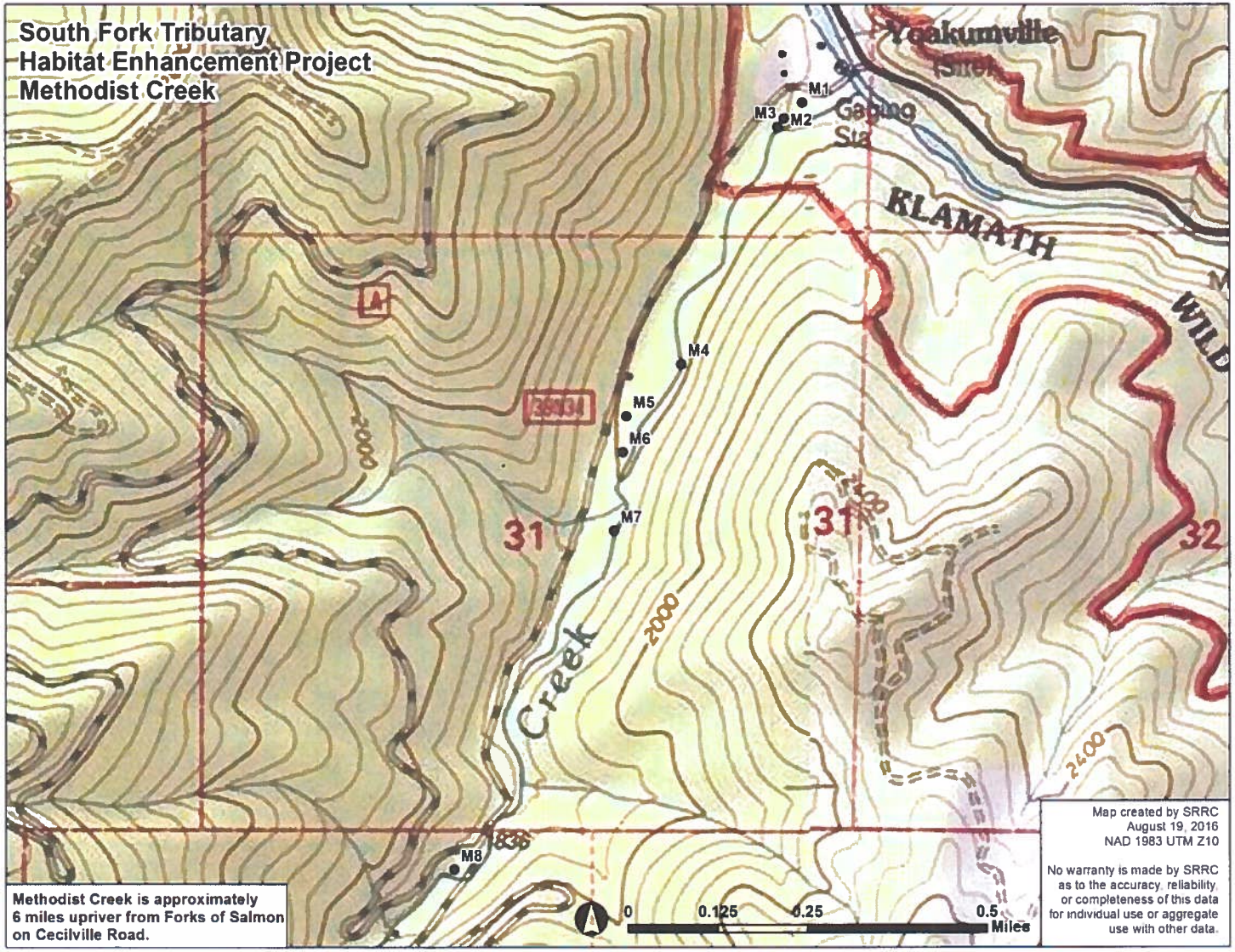

Figure 3: Project area map for Methodist Creek.

APPENDIX B – PROJECT DESIGN FEATURES

Project design features specific to this project, developed prior to and after scoping, will be used as a part of the proposed action to minimize or eliminate negative effects to resources in the project area. Specific best management practices (BMPs) that will be followed are listed in appendix B of this document. Design features listed in Table 1 are listed under the resource for which they are intended to mitigate effects.

Table 1: Project Design Features incorporated into Alternative 2.

Design Feature	Description
AIR-1	Dust control measures will be implemented to minimize dust generation and effects to visibility to drivers on the Forest Road.
ARCH-1	Physical demarcation and avoidance of historic features and artifacts within site boundaries except those identified for modification in association with Localized Treatment Areas.
ARCH-2	Klamath National Forest Heritage Resource staff will monitor and document all impacts to historic features as a result of implementing Localized Treatment Areas.
ARCH-3	If any late discoveries of human remains or sites not previously recorded are identified during project implementation, work in the immediate area will stop and the District Archaeologist and Heritage Program Manager will be contacted.
WS -1	For activities that occur within Riparian Reserves, the Normal Operating Season (NOS) will be June 1st to November 15th. Ground disturbing activities will also be restricted during periods of wet weather during the NOS. See BMP 1.5 (Appendix B). However, the more restrictive CDFW NOS of "June 15th to November 1st, or the first significant rainfall, whichever comes first", will be applied to this project.
WS-2	Mulch and/or seed areas disturbed by restoration activities where sufficient levels of soil cover are lacking.
WS-3	Erosion control and other requirements to protect water quality are described in BMPs (Appendix B). If "conditions arise or change in such a manner as to be considered deleterious to aquatic life, operations shall cease until corrective measures are taken" by CDFW.

Design Feature	Description
WS-4	The designated Project drafting site is within a Pacific salmonid-bearing stream reach. Therefore, *NOAA Fisheries Water Drafting Specifications* guidelines will be used. They include, but are not limited to, the following: 1. When in habitat potentially occupied by Chinook and Coho salmon, intakes will be screened with 3/32-inch mesh for rounded or square openings, or 1/16-inch mesh for slotted openings. When in habitat potentially occupied by steelhead trout, intakes will be screened with 1/8-inch mesh size. Wetted surface area of the screen or fish-exclusion device shall be proportional to the pump rate to ensure that water velocity at the screen surface does not exceed 0.33 feet/second. a. Use of a NOAA approved fish screen will ensure the above specifications are met. 2. Fish screen will be placed parallel to flow. 3. Pumping rate will not exceed 350 gallons-per-minute (gpm) or 10% of the flow of the anadromous stream drafted from. 4. Pumping will be terminated when tank is full. For any water drafting that occurs in non-fish bearing waters, Forest Service BMP 2.5 defines restrictions (Appendix B). All water drafting will avoid having any effect on the amount of cold water in thermal refugia at creek mouths and seeps.
WEED-1	Equipment will be washed to prevent the spread of invasive species, appropriate equipment cleaning procedures will occur prior to moving to the project area, and after leaving the project area.
WEED-2	Wherever seed and/or straw is used to restore areas of ground disturbance, certified weed free seed and straw will be specified in the contract and used during implementation and any follow up treatments. Only native species will be used for seeding areas of disturbance.
WEED-3	Noxious weed infestations will be flagged on the ground prior to project implementation. Known infestations of noxious weeds will be treated by either manual or mechanical methods prior to seed set to avoid transporting seeds from the infested locations to other portions of the project area.
WL-1	To avoid disturbance to potentially breeding northern spotted owl, in or near the project area, project activities that involve louder than ambient noise levels will be prohibited from February 1st - July 9th each year. This is in conformance with CDFW's restriction for northern spotted owl, other raptors, and migratory birds. This seasonal restriction can be lifted if protocol-level surveys conducted during the year of the action do not detect the presence of nesting owls or identified nests have been determined to have failed or fledged young.
WL-2	Prior to construction, access routes and worksites will be completely surveyed within species preferred habitats by a qualified biologist, to look for blue-gray taildropper, western pond turtle (individuals, nests, and overwintering burrows), salamander, foothill yellow-legged frogs (all life phases), and tailed frogs (all life phases). If such species are observed they will be moved from the exclusion zone downstream or upstream of the work site, to a safe location, prior to construction. This is in conformance with CDFW's recommendation for these species.